

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A liquid injector for injecting at least one liquid into a patient, comprising:

at least one injection performing mechanism ~~means~~—for performing injection of the liquid;

screen displaying part ~~means~~—for displaying a condition screen with its vertical axis representing an injection rate of the liquid and its horizontal axis representing an injection time period of the liquid;

condition entering part ~~means~~—for accepting an input action of at least one injection condition including an injection rate of the liquid relative to the injection time period;

condition storing part ~~means~~—for storing the entered injection condition;

image producing part ~~means~~—for producing a condition image having a horizontal width corresponding to the injection time period and including at least the injection rate as text data for each of the injection conditions;

image displaying part ~~means~~—for displaying the at least one produced condition image in the condition screen at a vertical position in association with the injection rate and a horizontal position in association with the injection time period;

state detecting part ~~means~~—for measuring at least the elapsed time from the start of the injection of the liquid; and

injection control part ~~means~~—for controlling the operation of the injection performing mechanism ~~means~~—in real time in accordance with the measured elapsed time and the stored injection condition;

wherein the condition entering part is configured to accept (i) an input action for moving the condition image upward or downward to thereby change the injection rate, or to accept (ii) an input action for moving a lateral end of the condition image leftward or rightward to thereby change the injection time.

2. **(Currently amended)** A liquid injector according to claim 1, further comprising quantity calculating part ~~means~~—for calculating an injection quantity of the liquid for each of the injection conditions,

wherein the image producing ~~part means~~—produces the condition image also including the injection quantity as text data.

3. **(Currently amended)** A liquid injector for injecting at least one liquid into a patient, comprising:

at least one injection performing mechanism means—for performing injection of the liquid;

screen displaying ~~part means~~—for displaying a condition screen with its vertical axis representing an injection rate of the liquid and its horizontal axis representing an injection quantity period of the liquid;

condition entering ~~part means~~—for accepting an input action of at least one injection condition including an injection time period of the liquid relative to the injection quantity;

condition storing ~~part means~~—for storing the entered injection condition;

image producing ~~part means~~—for producing a condition image having a horizontal width corresponding to the injection quantity and including at least the injection rate as text data for each of the injection conditions;

image displaying ~~part means~~—for displaying the at least one produced condition image in the condition screen at a vertical position in association with the injection rate and a horizontal position in association with the injection quantity;

state detecting ~~part means~~—for detecting at least the injection quantity from the start of the injection of the liquid; and

injection control ~~part means~~—for controlling the operation of the injection performing mechanism means—in real time in accordance with the detected injection quantity and the stored injection condition;

wherein the condition entering part is configured to accept (i) an input action for moving the condition image upward or downward to thereby change the injection rate, or to accept (ii) an input action for moving a lateral end of the condition image leftward or rightward to thereby change the injection quantity.

4. **(Currently amended)** A liquid injector according to claim 3, further comprising time period calculating ~~part means~~—for calculating an injection time period of the liquid for each of the injection conditions,

wherein the image producing part ~~means~~—produces the condition image also including the injection time period as text data.

5. **(Currently amended)** A liquid injector according to claim 1, wherein the condition entering part ~~means~~—accepts an input action of a plurality of the injection conditions for the one injection performing mechanism ~~means~~,

the condition storing part ~~means~~—stores a plurality of the injection conditions,

the image displaying part ~~means~~—displays the plurality of the produced condition images sequentially arranged horizontally in the condition screen, and

the injection control part ~~means~~—sequentially controls the operation of the one injection performing mechanism ~~means~~—in accordance with the plurality of the injection conditions.

6. **(Currently amended)** A liquid injector according to claim 1, comprising a plurality of the injection performing mechanism ~~means~~,

wherein the condition entering part ~~means~~—accepts an input action of at least one of the injection conditions for each of a plurality of the liquids,

the condition storing part ~~means~~—stores a plurality of the injection conditions, and

the injection control part ~~means~~—sequentially controls the operation of the plurality of the injection performing mechanism ~~means~~—in accordance with the plurality of the injection conditions.

7. **(Currently amended)** A liquid injector according to claim 1, comprising a plurality of the injection performing mechanism ~~means~~,

wherein the image producing part ~~means~~—produces the condition image in a different ~~difference~~ color for each of the liquids, and

the image displaying part ~~means~~—displays the produced condition image for each of the liquids in a different color in the condition screen.

8. (Canceled)

9. **(Currently amended)** A liquid injector according to claim 1, further comprising:

rate storing part ~~means~~—for storing an upper limit rate of the liquid injection in advance; and

an alarm outputting part means—for outputting an alarm when the injection rate of the stored injection condition exceeds the upper limit rate.

10-13. (Canceled)

14. **(Currently amended)** A liquid injector according to claim 1, further comprising review entering part means—for accepting an input action of a review instruction,

wherein the image displaying part means—enlarges the text data of the condition image when the review instruction is entered.

15. **(Currently amended)** A liquid injector according to claim 14, wherein

the image producing part means—produces the text data of the condition image as a combination of a numerical value and its unit, and

the image displaying part means—enlarges only the text data of the numerical value when the review instruction is entered.

16. **(Currently amended)** A liquid injector according to claim 15, wherein the image displaying part means—displays the text data of the unit outside the condition image when the review instruction is entered.

17-20. (Canceled)

21. **(Currently amended)** A liquid injector according to claim 1, wherein the condition storing part means—stores at least one of the injection condition of previous injection and the injection condition as a default,

the image producing part means—produces the condition image from the injection condition stored before new entry of the injection condition, and

the condition entering part means—accepts edit operation of the injection condition displayed on the condition screen as an input action of the new injection condition.

22-28. (Canceled)

29-32. (Canceled)